



# Water Quality Control Division

## Corrective Actions Guidance Document – Stormwater Associated with Non-Extractive Industrial Activities

### Permit No. COR900000

## **Corrective Actions – HOW TO GUIDE**

In accordance with Part I.J of the CDPS Stormwater Discharge Associated with Non-Extractive Industrial Activities Permit (COR900000), it is the permittee's responsibility to institute corrective actions to resolve specific facility conditions and mitigate potential noncompliance circumstances. Failure to take any required corrective actions constitutes a violation of the COR900000 permit. The following guidance will walk the permittee through the steps required to properly identify conditions requiring corrective actions and how to document and report these actions completely and accurately.

### **Step 1: Identify the Need for Corrective Actions**

Corrective actions are permittee initiated steps taken to resolve specific facility conditions that can lead to environmental impacts and noncompliance with the permit conditions. Below is a checklist that lists each condition that may occur. It can be used as a way to evaluate the conditions at your facility and assess if corrective actions need to be taken and documented in accordance with the permit.

#### **List of Conditions Requiring Corrective Actions**

**Check "YES" if any of the following apply to the permitted facility:**

##### **Conditions that must be eliminated**

- |   | <b>YES</b>               |
|---|--------------------------|
| A. An unauthorized release or discharge has occurred at the facility (e.g., a spill). See part I.A.1.a and I.A.1.b for a list of the discharges that are authorized by the permit.  | <input type="checkbox"/> |
| B. A discharge violated a numeric effluent limit in the permit. Numeric effluent limits, if applicable to a facility, are identified on the permit certification.   | <input type="checkbox"/> |
| C. A control measure was found that is not stringent enough for the discharge to meet applicable water quality standards. Note that this condition is likely only to be identified based on additional monitoring by the permittee, the Division, or EPA.   | <input type="checkbox"/> |
| D. A facility control measure was required to be modified to meet the practice-based effluent limits in the permit. Practice based effluent limits are listed in Part I.D.1 of the permit, and also in Part III, if sector-specific practices are required. | <input type="checkbox"/> |
| E. An inspection indicated that a facility control measure was not properly selected, designed, installed, operated, or maintained.   | <input type="checkbox"/> |

##### **Conditions that require review and modification**

- |  |                          |
|--|--------------------------|
| F. A change in design, operation, or maintenance of the facility significantly changed the nature of the pollutants that are discharged in the stormwater from this facility.                                  | <input type="checkbox"/> |
| G. The average of the quarterly sampling resulted in an exceedance of the applicable benchmark parameters of this permit. Benchmarks, if applicable to a facility, are identified on the permit certification. | <input type="checkbox"/> |

If you checked yes to **any** of the above items, you are required to institute corrective actions to address the condition triggering the action. Proceed with this document for further guidance to ensure that corrective actions are implemented **and** documented properly in order for your facility to remain in compliance with the permit.

Conditions that trigger the need for corrective actions fall into two categories:

1. **Elimination** - those conditions that the permittee must eliminate (e.g., a spill or an unauthorized discharge occurs)
2. **Modification** - those conditions that require the permittee to review and modify control measures (e.g., altering a control measure to meet benchmark monitoring parameters)

#### Conditions Requiring Elimination of the Problem

If a condition exists which must be eliminated to maintain compliance with the permit, the permittee must review and revise the control measures that are being used at the facility to address the pollutant source. This includes reviewing and revising the selection, design, installation, and implementation of existing and any new control measures that will ensure that the condition is eliminated. The intent of the corrective actions is that they are instituted in a proactive manner ensuring that the condition is not repeated in the future.

##### *Example Elimination Scenario, Part I:*

ABC, Inc. parks all maintenance vehicles at their shop at the end of each day in a designated, asphalt parking area. During a routine inspection, the operations manager notices an extremely large oil spill on the ground where a truck had been parked. The manager immediately realizes he has to clean this up and institute spill response procedures. First, the manager gathers additional personnel to help with the clean-up. They contain the spill with absorbent booms and pads from their nearby spill kit. The spill is then covered with clay, absorbent material and placed into drums for proper disposal. After the spill is completely removed, the operations manager holds a meeting to discuss the corrective actions. He understands that they must eliminate this condition from happening again.

#### Conditions Requiring Modification to Solve the Problem

Conditions requiring modification should be handled similarly to those being eliminated. Control measures should be reviewed, selected, designed, installed, and implemented to handle the pollutant source. In the Example Modification Scenario the condition does not necessarily need to be eliminated because it did not trigger noncompliance with a permit requirement. It does however need to be addressed before it reaches a magnitude that does constitute noncompliance with a permit requirement.

##### *Example Modification Scenario, Part I:*

ABC, Inc. recently decided to expand their business so that they can keep busy in the winter months. They are going to use some of their property to store magnesium chloride for de-icing of the city roads. This is a new potential pollutant source for ABC and will require that their stormwater management plan be modified to reflect the condition. The operations manager received the material this morning and immediately begins working on installing the control measures he previously selected and designed. He plans to implement all control measures and then return to the office to document these changes.

The above scenarios identify examples of the two categories (1: requiring elimination and 2: requiring modification) of conditions that trigger corrective actions. If your facility has encountered similar conditions, or any of the conditions listed in A-G in the *List of Conditions Requiring Corrective Actions*, you are required to complete and document the corrective actions. The requirements of the permit specific to corrective actions can be found in Part I.J. of the permit.

## **Step 2: Implementing Corrective Actions**

Corrective actions must be conducted with due diligence, as soon as possible in most cases, after the condition triggering the action has been discovered. The goal of the corrective action is to attain the effluent limits required by the permit and

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prevent potential impacts to water quality. Corrective actions implemented should be measurable in that an action is defined and can be documented as having occurred. When evaluating the actions for effectiveness, the result should be clear as to if the condition has improved, stayed the same, or deteriorated. For example, sweeping sediment off of an impervious surface periodically to improve Total Suspended Solids (TSS) results for benchmark monitoring does not define when the action will occur. Instead, a better solution would be to plan to sweep the same area on a reoccurring schedule resulting in the prevention of accumulated materials. The best solution however, would be to prevent or stop the spread of sediment onto the impervious surface to begin with.

Corrective actions come in a wide range and vary based on different industry standards. The corrective actions can be simple solutions such as covering stockpiled material, to implementing a treatment control measure before the stormwater is discharged from the facility. Employee training can also be a great corrective action if applicable to the triggering condition. It can include education on topics such as spill prevention or material handling and storage. Many times the triggering condition for a potential noncompliance issue may be unknown at first. Therefore completing further investigation into these conditions including sampling, monitoring, etc., may be necessary and can also qualify as a corrective action. These corrective actions require proper documentation in accordance with the permit. Once this investigation is completed, the control measure selected should be immediately implemented.

The following continuation of the scenario above describes the process and implementation of control measures and corrective actions to address the spill condition.

*Example Elimination Scenario, Part II:*

ABC, Inc. is working on their corrective actions to remedy the spill condition and make sure they do not have a reoccurrence. The initial action was to clean the spill, but the operation manager has discussed a plan that his facility will use going forward. Every truck will have a drip pad placed underneath it at the end of shift when it is parked overnight. On the down-slope side of the parking lot, he will add a row of oil absorbent booms as a barrier to any leaks or spills that make it through the pads. Each driver will remove the drip pad in the mornings and clean-up any residue that is found. Routine daily visual inspections of the vehicles will also be implemented to catch any mechanical issues before they become a problem.

In the above Example Elimination Scenario, the facility implements a corrective action that not only remedies the current situation, but will prevent the condition from becoming a problem again in the future. This is a solution that the facility will be able to evaluate and use to determine the success of the new control measure. Next is the corrective action implementation process for the storage of the new potential pollutant (magnesium chloride storage tanks) at the facility.

*Example Modification Scenario, Part II:*

ABC's operation manager has inspected all the magnesium chloride storage tanks upon arrival. He has ensured that they are all in good condition with no signs of leaks or damage. The manager positions the tanks on the far end of the property away from all discharge outfalls. He applies proper labels to identify the material inside and makes sure that there are no areas that are exposed and can accumulate precipitation. In case of a tank leak, the manager has instructed his staff to build a lined berm around the tank farm. This will contain all spills for proper removal so the material does not become a pollutant source. He then trains several of his staff on how to inspect the tanks and the yard to make sure there are no issues of potential noncompliance.

### **Step 3: Documenting Corrective Actions**

The permittee must document the discovery of the condition triggering the corrective action, as well as the corrective actions themselves. There is no required form, so the permittee is free to document the actions as they choose, so long as the information that follows is included.

To begin, the condition that triggers the need for corrective action review should be identified and the problem described. The date of this discovery must be included in the documentation. This information should be gathered and documented in the same day, but no later than 24 hours after the original discovery time.

After this has been documented and the condition has been addressed or a plan for addressing the condition has been determined, the permittee should complete the additional detailed documentation. First, include a summary of the corrective actions that were taken and the dates the actions were initiated. If it was determined that the condition did not require corrective actions, document the basis for this determination. Next, include notice of whether modifications were made to the Stormwater Management Plan (SWMP) as a result of the triggering condition or corrective actions. This should be documented with dates and detailed information of the control measure changes. The location of the control measure must also be shown on the SWMP site map. Finally, document the date the corrective actions were completed or that they are expected to be completed. This should all be completed no later than five (5) days after the discovery of the triggering condition. If the actions are not completed at the time of this documentation and an “expected completion date” is included, be sure to return to the documentation later and specify when the actions were actually completed.

The following scenario continued from above shows what the corrective action documentation would look like for eliminating the pollutant source, or spill condition.

*Example Elimination Scenario, Part III:*

During the initial inspection in which the spill was discovered, the operations manager documented in his report the date of discovery, the source as being the parked maintenance vehicle, and he describes the spilled material and quantity. This will serve as his 24 hour initial documentation. He includes this with the facility SWMP when he returns to the office. The next day, when the corrective actions are completed as described previously, the manager completes the final documentation. He summarizes all actions that were taken to prevent spills from maintenance vehicles from being a future problem. He identifies that berms were placed on the down-slope side of the parking lot and includes this control measure in the SWMP along with the installation and implementation specification. He then finalizes the report by documenting the date these actions were completed. This is all completed within the five (5) day timeline.

Similarly, the modification scenario would include the following documentation to remain in compliance with the requirements of the permit:

*Example Modification Scenario, Part III:*

While preparing to receive the storage tanks of magnesium chloride, the manager completes the required 24 hour documentation. He documents the date, the description of the new potential pollutant source that he will be storing, and his plan to implement control measures. A couple of days later, after installing the tanks and implementing control measures, the manager completed the required five (5) day documentation. He summarizes the description of the berms, tanks, and other control measures that were installed. He also includes a copy of the training presentation that was completed to educate staff members on tank inspections. The manager identifies that changes are needed to the SWMP. He completes these changes in the records and on the site map, including the installation and implementation specification for the control measure type used. Finally he includes that date that these actions were completed.

These examples demonstrate the need to keep up with the documentation of the actions as the process is completed. Always include any and all relevant information so that when reviewing the corrective actions, it is clear that the requirements of the permit were met and that the actions did remedy the triggering condition. Corrective action documentation should be kept in a designated section of the SWMP so the information is easily located and gathered for submittals with the Annual Report or for review during an inspection as needed.

Use the checklists below to ensure that you have completed the required documentation for your corrective actions in the appropriate timeline.

<b>Did you complete the 24 hour documentation requirements?</b>	<b>YES</b>
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Identified the condition triggering the need for the corrective action review	<input type="checkbox"/>
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Described the problem/condition identified	<input type="checkbox"/>
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Documented the date the problem/condition was identified	<input type="checkbox"/>
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<b>Did you complete the five (5) day documentation requirements?</b>	<b>YES</b>
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Summarized the corrective action taken or to be taken	<input type="checkbox"/>
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Identified whether SWMP modifications are required as a result of the condition or corrective action	<input type="checkbox"/>
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Documented the date the corrective action was initiated	<input type="checkbox"/>
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Documented the date the action was completed or expected to be completed	<input type="checkbox"/>
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If you **did not** check “YES” to any of the above items, complete this documentation immediately. If the documentation was not completed as necessary and the timelines discussed above are passed, include in your documentation a statement of the noncompliance with the corrective action requirements and how this noncompliance will be avoided in the future.

#### Step 4: Submitting Corrective Action Documentation

All documentation of corrective actions and triggering conditions should be kept with the SWMP at all times. The information must be made available in the event of an inspection by the Division. All corrective action documentation is also required to be submitted to the Division in the Annual Report in accordance with Part I.K.2 of the permit.

<b>Have you submitted your corrective actions appropriately?</b>	<b>YES</b>
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Documented and maintained with the SWMP at the facility	<input type="checkbox"/>
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Submitted to the Division in the Annual Report by March 31 <sup>st</sup> each year	<input type="checkbox"/>
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If you **did not** check yes to both boxes above, be sure to immediately submit the corrective action information. The SWMP should have a running log of all corrective actions that have been implemented at the facility. This is part of the “living document” and should be updated to show dates that corrective actions were initiated, dates completed, and any relevant information that should be included if there was a delay in implementing actions.

Failure to take any required corrective actions is a violation of the permit. However, where corrective action is triggered by an event that does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation unless the permittee fails to take the required corrective action within the relevant deadlines established in the permit and discussed above. If the event triggering the corrective action is a permit violation (e.g., a discharge that violates a numeric effluent limit), correcting it does not remove the original violation.

The WQCD SWMP guidance for the COR900000 Permit provides additional information on record keeping and control measures relevant to corrective actions along with example forms for documenting corrective actions. This guidance can be found at [www.coloradowaterpermits.com](http://www.coloradowaterpermits.com) under Commerce and Industry, then under Commerce and Industry Compliance Assistance and Guidance. For further guidance on corrective actions, reference the EPA 2008 MSGP.